**Algebra 2 GHP Midterm Review**

1.) Name all the subsets of the real numbers to which belongs.

2.) Name all the subsets of the real numbers to which belongs.

3.) Name all the subsets of the real numbers to which belongs.

4.) Simplify:

5.) Simplify:

6.) Evaluate for x = 2: 

7.) Evaluate for :

8.) Name the property illustrated by:

9.) Name the property illustrated by:

10.) Simplify: 

11.) Simplify: 

12.) Simplify: 

13.) Simplify: 

14.) Simplify and write with positive exponents: 

15.) Simplify and write with positive exponents: 

16.) Simplify:

17.) Simplify: 

18.) Simplify: 

19.) If , find .

20.) If , find .

21.) Find the domain of the relation: .

22.) Is the relation  a function?

23.) 

24.) 

25.) 

26.) 

27.) 

28.) 

29.) 

30.) 

31.) 

32.) 

33.) 

34.) Find the inverse of 

35.) Find the inverse of 

36.) Let g(x) be any function. Find the equation of the graph that will be obtained if the graph of y = g(x) is translated 5 units to the left and 7 units down.

37.) Which test is used to determine if the graph of a function is one – to – one? Explain.

38.) Which test is used to determine if graph of a relation is a function? Explain.

39.) Simplify:

40.) Simplify:

41.) Simplify:

42.) Simplify: 

43.) Subtract:

44.) Multiply:

45.) Multiply: 

46.) Subtract: 

47.) Rationalize: 

48.) Factor: 

49.) Factor: 

50.) Factor: 

51.) Factor: 

52.) Factor: 

53.) Factor: 

54.) Factor completely: 

55.) Factor completely: 

56.) Factor by grouping: 

57.) Which direction does the graph of  open?

58.) Find the axis of symmetry of .

59.) Find the vertex of .

60.) How is the width of a quadratic function graph determined?

61.) What determines if the quadratic function graph will have a maximum or minimum value?

62.) Find the y-intercept of .

63.) Solve the quadratic: 

64.) Solve the quadratic: 

65.) Solve the quadratic: .

66.) Solve the quadratic: .

67.) Solve using the quadratic formula: .

68.) Complete the square .

69.) Find the discriminant of .

70.) Find the number and type of solutions of .